

Tsunami Inundation Mapping Technical Meeting

Washington State Department of Natural Resources

Olympia, Washington

December 9, 1996

10:00 a.m. - 2:00 p.m.

(Minutes drafted by E. Bernard and reviewed by G. Priest, T. Walsh, and F. Gonzalez)

Attendees: Tim Walsh, George Priest, Antonia Baptista, Frank Gonzalez, Eddie Bernard

Agenda:

- I. Washington State tsunami inundation mapping needs - Walsh
- II. Oregon tsunami inundation mapping needs - Priest
- III. NOAA Inundation Mapping Center - Bernard, Gonzalez
- IV. Oregon Graduate Institute capabilities - Baptista
- V. Discussion of matching needs with resources

Minutes:

- I. Walsh identified the following communities in need of tsunami inundation maps in priority:
 - 1. Grays Harbor
 - 2. Long Beach Peninsula
 - 3. Westport - Ocean Shores
 - 4. Raymond - South Bend

Walsh indicated that the inundation information would be incorporated into earthquake hazard maps that included landslide and liquefaction potential at some later time under a separate project.

ACTION ITEM FOR WALSH - secure the best available bathymetric and topographic data for all areas needing inundation maps.

II. Priest described the Oregon community priority listing as:

1. Seaside - to be completed in summer 1997 using 2-D models
2. Selitz Bay - completed 2-dimensional model
3. Newport - to be completed in April 1997 using 2-D models
4. Gold Beach
5. Coos Bay
6. Florence
7. Waldport

Priest explained that Oregon would prefer using 2-dimensional models, as was done for Selitz Bay, for all communities rather than 1-dimensional models.

ACTION ITEM FOR PRIEST - assemble best bathymetric and topographic data for communities.

III. Bernard and Gonzalez described NOAA's role of ASSISTING the states in the production of inundation maps. After lengthy discussion, the definition of assisting was "to provide tsunami inundation information that could be used by the states in producing inundation maps." The discussion also explored the higher costs of 2-dimensional modeling instead of 1-dimensional modeling.

IV. Baptista described tsunami modeling activities of the Oregon Graduate Institute's Center for Coastal Research in Beaverton, Oregon. His group had provided George Priest with the 2-dimensional modeling for Selitz Bay and was providing models for Seaside and Newport, Oregon.

V. Summary of Discussion

After considerable discussion of the next step to produce inundation maps for Oregon and Washington, the group realized that they could only formulate options until the leader of the Tsunami Inundation Mapping Center (TIMC) was hired. Options discussed in priority ranking

include:

1. Combine the efforts of TIMC and OGI to construct and use 2-dimensional models for all identified communities. The product of these models would be an estimated inundation for a Cascadia Earthquake scenario. The inundation estimate would be used by George Priest and Tim Walsh to produce the inundation maps for Washington and Oregon. This option requires more money than the originally planned inundation maps. A rough estimate of the cost is \$500K to run models for 9 sites (\$50Kx9=\$450K) plus \$50K to convert model information to maps. There are three sources of funds available to complete the maps: 1) the FEMA support to the states (\$200K), 2) the NOAA support for the Center (\$200K), and 3) the states' support for inundation mapping (\$100K). The details of the funding partitioning were left for a future meeting.

2. Run a combination of 1-dimensional and 2-dimensional models and provide results of these estimates to Walsh and Priest. This option requires 1 dimensional modeling for exposed locations and 2-dimensional modeling for 5 estuaries. George Curtis could be approached to run the 1-dimensional models and the TIMC could run the 2-dimensional models. An estimate for this option would be \$400K to run the 1-dimensional model for about \$100K, to construct and run the 2-dimensional models for 5 sites for \$250K (\$50Kx5=\$250K), and to produce maps for about \$50K.

3. Run 1-dimensional models for all communities. This option would cost approximately \$150K for the model runs and transfer to state agencies. The cost to run the model would be about \$100K and to produce maps from these model estimates would be about \$50K.

The meeting ended with these three options as available, but everyone agreed that option 1 was so strongly preferred that all are working toward this option as our goal. The next step is for Bernard and Gonzalez to advertise the TIMC leader's position and set up a telephone conference call between Priest, Walsh, Bernard, Gonzalez, Mayer, Paige, and Jonientz-Trisler once a list of applicants has been received around mid-January 1997. In the meantime, we are seeking clarification on FEMA policy on matching funds, seeking commitments by the States to support this effort, and contacting potential candidates for the TIMC leader position.